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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BRITTAIN, JAMES R	

ART UNIT	PAPER NUMBER
3677	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,236	BARCLAY ET AL.	
	Examiner	Art Unit	
	James R. Brittain	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-11,13-30,35-52,54-69,117-123 and 131-134* is/are pending in the application.

4a) Of the above claim(s) *117-121,131 and 132* is/are withdrawn from consideration.

5)☒ Claim(s) *133 and 134* is/are allowed.

6)☒ Claim(s) *9-11,13-15,17-30,35-52,54-65,67-69,122 and 123* is/are rejected.

7)☒ Claim(s) *16 and 66* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

Applicant's election of Group I, Species III in the reply filed on June 28, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 117-121, 131 and 132 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 28, 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 40-42 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (US 4507535) in view of Andreoli et al. (US 5225649).

Bennett et al. (figures 1, 5) teaches a method of cutting flexible material, comprising: holding the flexible material 12 against a rotatable drum 52, the rotatable drum including slots 68; and cutting the flexible material with a laser beam, L, projected from an inside of the drum into the slots method for cutting flexible material. The difference is that the method does not produce segments by laterally traversing the laser through slots nor is the rotatable drum power driven nor is suction used to hold the flexible material on the drum. However, Andreoli et al.

(figures 4-6) teaches a method of cutting flexible material by having the laser move laterally across the grooves in a drum 11 as being desirable so as to cut segments of the web. Further, a drive means is used to rotate the drum 11 as indicated in col. 2, lines 27-29 thereby providing better control of the web. In the context of Andreoli et al., a factory environment, it would be understood that the drive means would be a motor. Also, Andreoli et al. teaches that suction is desirable to hold the flexible material on the drum (col. 1, lines 55-60; col. 2, lines 27-36). As cutting segments would be desirable, modification of the method of cutting taught by Bennett et al. such that segments are created by extending the slots laterally across the drum would have been obvious in view of Andreoli et al. suggesting that it is desirable to do so in order to cut segments of flexible material and to have better control of the web by using a drive means for the drum and suction to hold the flexible material on the drum as taught by Andreoli et al. As to claim 41, further modification of the method of cutting taught by Bennett such that the holding of the flexible material against the drum after cutting is accomplished by suctioning would have been obvious in view of Andreoli et al. (figures 4-6) teaching that suctioning the web against the drum improves the feeding and guiding of the web across the drum (col. 1, lines 55-60; col. 2, lines 27-36). In regard to claim 42, modification of the method of Bennett et al. such that the laser is translated would have been obvious in view of Andreoli et al. suggesting the translation of the cutting laser beam as being desirable so as to have a precise cutting of the web (col. 3, lines 8-24). As to claim 50, Bennett et al. (figures 1, 5) teaches a method of cutting a flexible material comprising: holding the flexible material 12 relative to an outer surface of a drum 52 having a plurality of slots 68 extending from the outer surface to an inner surface of the rotatable drum; directing a laser beam, L, outwardly toward the inner surface; and rotating the rotatable

drum such that the laser beam sequentially passes through the plurality of slots to cut by melting the flexible material. The difference is that the method does not produce segments by laterally traversing the laser through slots nor is the rotatable drum power driven with the flexible material held in place by suctioning. However, Andreoli et al. (figures 4-6) teaches a method of cutting flexible material by having the laser move laterally across the grooves in a drum as being desirable so as to cut segments of the web. Further, a drive means is used to rotate the drum 11 as indicated in col. 2, lines 27-29 thereby providing better control of the web. In the context of Andreoli et al., a factory environment, it would be understood that the drive means would be a motor. Also, Andreoli et al. teaches that suction is desirable to hold the flexible material on the drum (col. 1, lines 55-60; col. 2, lines 27-36). As cutting segments would be desirable, modification of the method of cutting taught by Bennett et al. such that segments are created by extending the slots laterally across the drum would have been obvious in view of Andreoli et al. suggesting that it is desirable to do so in order to cut segments of flexible material and to have better control of the web by using a drive means for the drum and suction to hold the flexible material on the drum as taught by Andreoli et al.

Claims 43, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (US 4507535) in view of Andreoli et al. (US 5225649) as applied to claim 40 above, and further in view of Mominee et al. (US 3808394).

Further modification of the method of cutting material taught by Bennett et al. such that the laser beam projects along a radial direction with respect to a central axis would have been obvious in view of Mominee (figures 3, 4, 7) in which the laser beam projects from the central axis of the drum so as to provide symmetry. As to claim 52, further modification of the method

of cutting flexible material taught by Bennett et al such that the laser is operated intermittently would have been obvious because while Bennett chooses not to use an intermittent beam chopper because of the expense, Mominee et al. suggest a less expensive switch 66 to provide intermittent operation.

Claims 30, 35, 37-39, 44-46, 48, 49, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (US 4507535) in view of Andreoli et al. (US 5225649) as applied to claim 40 above, and further in view of Kendall (WO 98/16430).

Further modification of the method of cutting taught by Bennett et al. such that the cutting produces bags would have been obvious in view of Kendall (figure 1) teaching that while lasers have been used in processes producing welds, seals or score lines in the longitudinal direction along a moving film that it is desirable to provide lateral scanning by a carbon dioxide laser (page 8, line 12) so as to form individual bags (page 2, line 13 - page 3, line 4; page 12, lines 9-13) made from polymers (page 7, lines 11-15) and that metal foils can also be used (page 12, line 6), which would inherently be opaque. In regard to claim 35, the creation of individual bags as taught by Kendall (WO 98/16430) would inherently include the step of collecting the bags after cutting them.

Claims 47 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (US 4507535) in view of Andreoli et al. (US 5225649) as applied to claim 40 above, and further in view of Snellman et al. (US 5611949).

Further modification of the method of cutting taught by Bennett et al. (figures 1, 5) such that the cutting is controlled by a galvanometer would have been obvious in view of Snellman et

al. teaching the use of a galvanometer 141 as being conventional in controlling the laser beam (col. 12, lines 9-13).

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. (US 4507535) in view of Andreoli et al. (US 5225649) and Kendall (WO 98/16430) as applied to claim 30 above and further in view of Snellman et al. (US 5611949).

Further modification of the method of cutting taught by Bennett et al. (figures 1, 5) such that the cutting is controlled by a galvanometer would have been obvious in view of Snellman et al. teaching the use of a galvanometer 141 as being conventional in controlling the laser beam (col. 12, lines 9-13).

Claims 9-11, 13-15, 17-19, 21, 22, 25-29, 60, 64, 67, 69, 122 and 123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430).

Boccia (figures 1, 2) teaches a method of generating end terminations along a fastener for a reclosable bag, comprising: providing the fastener with first and second tracks 13, 14, the first track including a first profile, the second track including a second profile for interlocking with the first profile; and cutting the fastener with heat sealing bars 42, 43 to divide the fastener into segments associated with respective ones of the recloseable bags, each segment extending between opposing ends. The differences are that the profiles are not clearly engaged between the ends and a laser isn't used to perform the sealing and cutting. However, Howard (figures 7-12) teaches interengaging the profile strips between the ends prior to severing so as to provide a better seal and Kendal (figure 1) teaches a method replacing hot welding, radio frequency welding and ultrasonic welding in the bag making field with laser cutting and sealing so as to

avoid the disadvantage of mechanical contact between the substrate to be welded and cut and the cutting equipment because mechanical contact can result in substrate sticking to the sealing/cutting equipment, and requires blades or the like which need regular sharpening, cleaning and maintenance (page 1, lines 6-17). As it would be beneficial to avoid the wear of the contacting equipment of Boccia and to provide a better seal, it would have been obvious to modify the method of generating end terminations along a fastener taught by Boccia so that the profile strips are interengaged prior to sealing and cutting so as to provide a better sealing of the bag in view of Howard teaching such a step as being desirable and that a laser is used in view of Kendall teaching that it is desirable to do so. As to claim 13, Boccia (figures 1, 2) teaches a method of creating a plurality of recloseable bags from a web of material, comprising: providing the web of material 10, 12 including a fastener 13, 14 attached to the web, the fastener allowing the bags to be recloseable; cutting the fastener at spaced locations corresponding to the ends of the plurality of recloseable bags; and cutting the web of material adjacent to the spaced locations to form the plurality of recloseable bags. The differences are that the profiles are not clearly engaged between the ends and a laser isn't used to perform the sealing and cutting. However, Howard (figures 7-12) teaches interengaging the profile strips between the ends prior to severing so as to provide a better seal and Kendal (figure 1) teaches a method replacing hot welding, radio frequency welding and ultrasonic welding in the bag making field with laser cutting and sealing by translating so as to avoid the disadvantage of mechanical contact between the substrate to be welded and cut and the cutting equipment because mechanical contact can result in substrate sticking to the sealing/cutting equipment, and requires blades or the like which need regular sharpening, cleaning and maintenance (page 1, lines 6-17). As it would be beneficial to avoid

the wear of the contacting equipment of Boccia and to provide a better seal, it would have been obvious to modify the method of generating end terminations along a fastener taught by Boccia so that the profile strips are interengaged prior to sealing and cutting so as to provide a better sealing of the bag in view of Howard teaching such a step as being desirable and so that a laser is used in view of Kendall teaching that it is desirable to do so. In regard to claim 18, further modification of the method of making a plurality of bags taught by Boccia such that the web moves along a drum while the laser cuts and seals would have been obvious in view of Kendall teaching that it is desirable to utilize a rotating drum (page 8, lines 5-11) so as to more efficient. As to claim 25, Boccia (figures 1, 2) teaches a method of creating a plurality of recloseable bags from a web of material 10, 12, comprising: providing the web of material including a fastener 13, 14 attached to the web; operating heated bars 42, 43 to seal the fastener at ends of the plurality of recloseable bags; and operating the bars to seal side edges of the plurality of recloseable bags. The differences are that the profiles are not clearly engaged between the ends and a laser isn't used to perform the sealing and cutting. However, Howard (figures 7-12) teaches interengaging the profile strips between the ends prior to severing so as to provide a better seal and Kendal (figure 1) teaches a method replacing hot welding, radio frequency welding and ultrasonic welding in the bag making field with laser cutting by a carbon dioxide laser (page 8, line 12) and sealing by translating so as to avoid the disadvantage of mechanical contact between the substrate to be welded and cut and the cutting equipment because mechanical contact can result in substrate sticking to the sealing/cutting equipment, and requires blades or the like which need regular sharpening, cleaning and maintenance (page 1, lines 6-17). As it would be beneficial to avoid the wear of the contacting equipment of Boccia and to provide a better seal, it would have

been obvious to modify the method of generating end terminations along a fastener taught by Boccia so that the profile strips are interengaged prior to sealing and cutting so as to provide a better sealing of the bag in view of Howard teaching such a step as being desirable and so that a laser is used in view of Kendall teaching that it is desirable to do so. In regard to claim 29, further modification of the method of making a plurality of bags taught by Boccia such that the web moves along a drum while the laser cuts and seals would have been obvious in view of Kendall teaching that it is desirable to utilize a rotating drum (page 8, lines 5-11) so as to more efficient. In regard to claim 60, Boccia (figures 1, 2) teaches a method of creating end terminations on a two-part fastener 13, 14 attached to a web 10, 12 of material for producing a plurality of bags, comprising: holding the web of material relative to heated sealing bars 42, 43 with the two-part fastener positioned a known location; and fusing both parts of the two-part fastener with the heated sealing bars. The differences are that the profiles are not clearly engaged between the ends and a laser isn't used to perform the sealing and cutting. However, Howard (figures 7-12) teaches interengaging the profile strips between the ends prior to severing so as to provide a better seal and Kendal (figure 1) teaches a method replacing hot welding, radio frequency welding and ultrasonic welding in the bag making field with laser cutting by a carbon dioxide laser (page 8, line 12) and sealing by translating so as to avoid the disadvantage of mechanical contact between the substrate to be welded and cut and the cutting equipment because mechanical contact can result in substrate sticking to the sealing/cutting equipment, and requires blades or the like which need regular sharpening, cleaning and maintenance (page 1, lines 6-17). As it would be beneficial to avoid the wear of the contacting equipment of Boccia and to provide a better seal, it would have been obvious to modify the method of generating end

terminations along a fastener taught by Boccia so that the profile strips are interengaged prior to sealing and cutting so as to provide a better sealing of the bag in view of Howard teaching such a step as being desirable and that a laser is used in view of Kendall teaching that it is desirable to do so. As to claim 122, Boccia (figures 1, 2) teaches a method of forming a fastener for reclosable packages, the method comprising: forming ends of first and second tracks 13, 14 comprising corresponding interlocking profiles, wherein the forming is by a device that contacts the first and second tracks; and sealing the ends of first and second tracks with heat. The differences are that the profiles are not clearly engaged between the ends, contacting occurs during the sealing by the heated sealing bars and there is no teaching of surface tension being used to form the termination. However, Howard (figures 7-12) teaches interengaging the profile strips between the ends prior to severing so as to provide a better seal and Kendal (figure 1) teaches a method replacing hot welding, radio frequency welding and ultrasonic welding in the bag making field with laser cutting by a carbon dioxide laser (page 8, line 12) and sealing by translating so as to avoid the disadvantage of mechanical contact between the substrate to be welded and cut and the cutting equipment because mechanical contact can result in substrate sticking to the sealing/cutting equipment, and requires blades or the like which need regular sharpening, cleaning and maintenance (page 1, lines 6-17). As it would be beneficial to avoid the wear of the contacting equipment of Boccia and to provide a better seal, it would have been obvious to modify the method of generating end terminations along a fastener taught by Boccia so that the profile strips are interengaged prior to sealing and cutting so as to provide a better sealing of the bag in view of Howard teaching such a step as being desirable and that a laser is

used in view of Kendall teaching that it is desirable to do so as to avoid contact and thereby inherently provide the termination formation by surface tension.

Claims 23 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430) as applied to claims 22 and 60 above, and further in view of Andreoli et al. (US 5225649).

Further modification of the method of cutting taught by Boccia and Kendall such that the holding of the flexible material against the drum is accomplished by suctioning would have been obvious in view of Andreoli et al. (figures 4-6) teaching that suctioning the web against the drum improves the feeding and guiding of the web across the drum (col. 1, lines 55-60; col. 2, lines 27-36).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430) as applied to claim 18 above, and further in view of Kurihara et al. (US 5382773).

Further modification of the method of cutting taught by Boccia and Kendall such that the laser is located outside of an interior of the drum and a laser beam from the laser projects inwardly into the interior and then radially outward from the interior of the drum would have been obvious in view of Kurihara et al. (figure 3) teaching that it is desirable to have such a configuration for ease of tending the laser.

Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430) as applied to claim 60 above, and further in view of Snellman et al. (US 5611949).

Further modification of the method of cutting taught by Boccia and Kendall such that the cutting is controlled by a galvanometer would have been obvious in view of Snellman et al. teaching the use of a galvanometer 141 as being conventional in controlling the laser beam (col. 12, lines 9-13).

Claims 20, 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430) as applied to claim 60 above, and further in view of Bennett et al. (US 4507535).

Further modification of the method of cutting taught by Boccia and Kendall such that the beam projects from an interior of a drum through slots to the outside would have been obvious in view of Bennett et al. (figures 1, 5) teaching the use of the laser projecting from the inside of the drum as being desirable.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boccia (US 4094729) in view of Howard (US 3986914) and Kendall (WO 98/16430) as applied to claim 60 above, and further in view of Robinson et al. (US 5279693).

Further modification of the method of cutting taught by Boccia and Kendall such that the roller of Kendall has a circumferential groove to register the two part fastener would have been obvious in view of Robinson et al. (US 5279693) teaching the use of such a groove 314 in the roller so as to better guide the two part fastener.

Allowable Subject Matter

Claims 16 and 66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 133 and 134 are allowed.

Response to Arguments

Applicant's arguments filed in response to the last office action on the merits have been fully considered but they are not persuasive.

The limitation has been added indicating that the profiles are interengaged between the ends. Howard has been added to the rejection to address this limitation. As to the motor driven roller limitation, Andreoli et al. indicates a drive means is used to rotate the drum 11 as indicated in col. 2, lines 27-29 thereby providing better control of the web. In the context of Andreoli et al., a factory environment, it would be understood that the drive means would be a motor. The limitations with regard to the importance of providing suction to hold the flexible material upon a driven roller would have been obvious in view of Andreoli et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is (571) 272-7065. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James R. Brittain
Primary Examiner
Art Unit 3677

JRB